

First Experiences with a Simple Patient INTERNET Program for Drug Risk Checking

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Background. Recent studies have shown that in the decentralized environment of health care today, patients are at substantial risk for drug interactions and adverse drug events. Patients are going to different doctors who may not be aware of other drugs that have been prescribed.

Studies of prescribing practices of physicians have confirmed that patients undergo a substantial risk of being subject to drug interactions and contraindications (1-5). Self medication contributes significantly to that danger and harmful drug risks are furthermore enhanced. Additionally, patients might often experience problems if neither the doctor nor the pharmacist is available, for example, during the night. Facing increasing problems of costs and financing in the professional health care sector, patients have to take more self initiative to ensure their drug safety and to save costs.

System. A new INTERNET-based drug interaction information system for consumers, called the DIT Drug Risk Navigator™, has been developed as a simple tool for drug risk checking. Using the World Wide Web, consumers can enter medications they are taking, medical conditions and allergies, and immediately receive an individualized drug risk analysis in lay terms with an easily understandable graphical representation. Drug risk checks are made using the SCHOLZ Arzneimittel-datenbank, a drug information database that has been extensively used by German physicians since the 1980's.

INTERNET information systems with their around the clock availability might be helpful instruments for the patient. Therefore, the DIT Drug Risk Navigator (DRN) has been developed as a simple tool which enables the patient to check drug risks, i.e. patient specific drug-drug interactions, cumulative side effects, drug-disease interactions, drug allergies and side effect induced contraindications.

The DRN includes the following features:

1. All drug risk checks are done on the basis of SCHOLZ Arzneimittel-datenbank which is widely used by physicians in Germany and has an

interface to classifications of drugs and diagnoses, including the National Drug Code Directory (NDC) of the FDA, Drug Reference List (DRL), and the International Classification of Diseases (ICD10) of WHO. Adaptations to the U.S. requirements have been done and are continually updated.

2. The patient may enter his or her medications and diagnoses for individualized risk analysis.
3. An easily understandable graphical representation of all potential risks has been developed. The system allows the patient to discern the seriousness and the frequency of potential undesired effects.
4. Text messages are written for seventh-to-eighth grade reading level so that the language is easily understood.
5. Messages particularly aim to direct the patient to get feedback from the doctor.

Patients may also ask questions by e-mail to the DRN team which consists of physicians and pharmacists.

Evaluation/Conclusions. First experiences with the technology developed and about the acceptance of the system by the INTERNET-using patients will be reported at the conference.

References

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